

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: DUBES POND	Lake Area (ha):	31.77
Town: HOOKSETT	Maximum depth (m):	2.7
County: Merrimack	Mean depth (m):	1.0
River Basin: Merrimack	Volume (m ³):	304750
Latitude: 43°04'15" N	Relative depth:	0.4
Longitude: 71°24'00" W	Shore configuration:	1.75
Elevation (ft): 425	Areal water load (m/yr):	25.19
Shore length (m): 3500	Flushing rate (yr ⁻¹):	26.30
Watershed area (ha): 1576.6	P retention coeff.:	0.45
% watershed ponded: 1.4	Lake type:	artificial

BIOLOGICAL:

12 January 2001

21 June 2000

DOM. PHYTOPLANKTON (% TOTAL)	#1	PHACUS 50%	ASTERIONELLA 32%
	#2	ASTERIONELLA 15%	MALLOMONAS 27%
	#3	OSCILLATORIA 10%	SYNURA 19%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			6.90
DOM. ZOOPLANKTON (% TOTAL)	#1	KELICOTTIA 50%	NAUPLIUS LARVA 56%
	#2	KERATELLA 26%	KERATELLA 15%
	#3	ROTIFER SPP 26%	CALANOID COPEPOD 8%
ROTIFERS/LITER		78	28
MICROCRUSTACEA/LITER		<1	84
ZOOPLANKTON ABUNDANCE (#/L)		78	119
VASCULAR PLANT ABUNDANCE			Very abundant
SECCHI DISK TRANSPARENCY (m)			1.3
BOTTOM DISSOLVED OXYGEN (mg/L)		2.5	2.2
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: DUBES POND

Town: HOOKSETT

	12 January 2001		21 June 2000		
DEPTH (m)	1.5		1.0		2.0
pH (units)	5.0		5.0		4.9
A.N.C. (Alkalinity)	0.5		0.2		0.2
NITRATE NITROGEN	< 0.05		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN			0.54		0.51
TOTAL PHOSPHORUS	0.014		0.013		0.014
CONDUCTIVITY (μ mhos/cm)	41.8		33.5		33.7
APPARENT COLOR (cpu)	110		80		80
MAGNESIUM			0.32		
CALCIUM			1.2		
SODIUM			3.0		
POTASSIUM			< 0.40		
CHLORIDE	4		4		4
SULFATE	6		4		4
TN : TP			42		36
CALCITE SATURATION INDEX					

All results in mg/L unless indicated otherwise

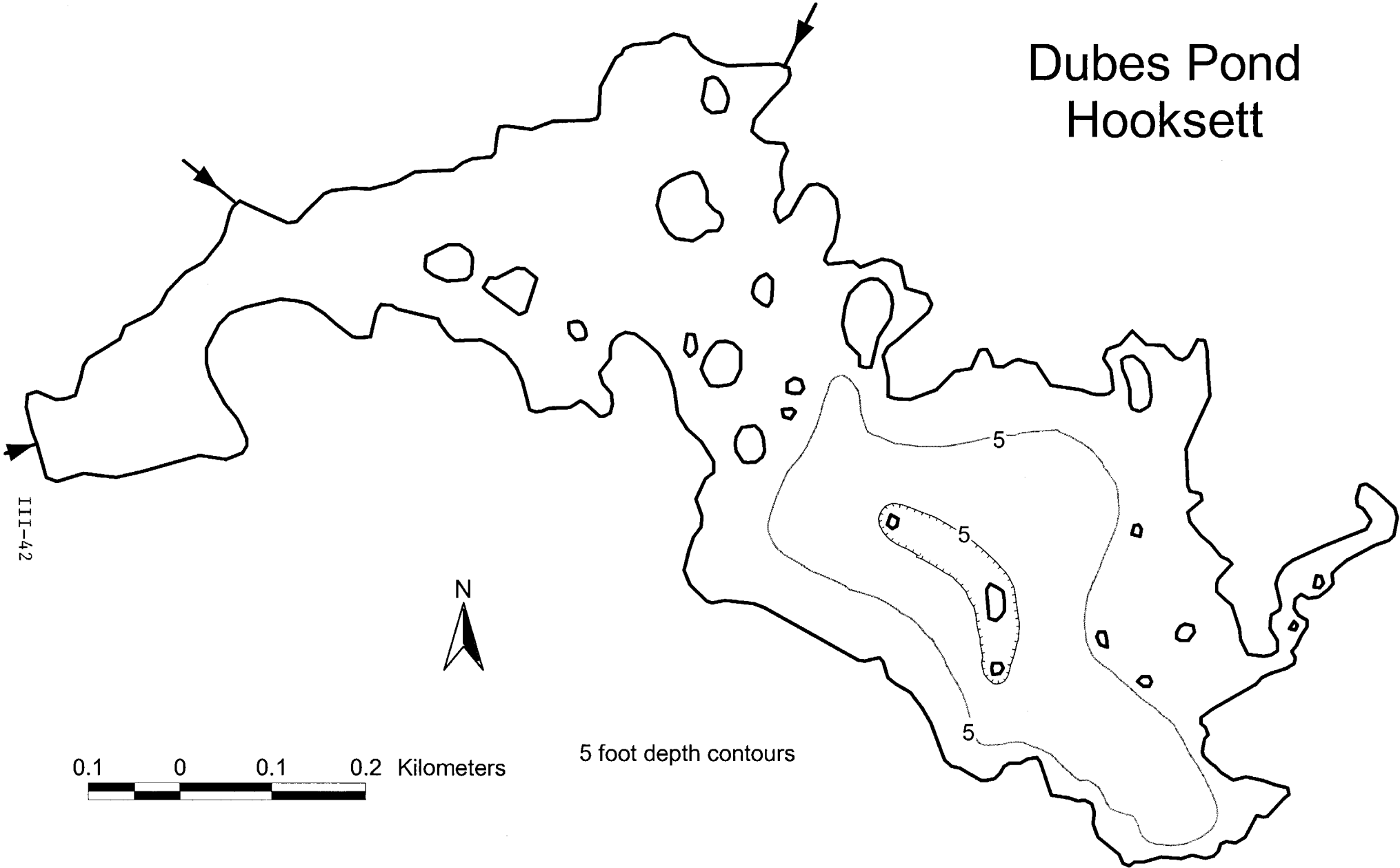
TROPHIC CLASSIFICATION: 2000

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	6	1	11	Eutro.

COMMENTS:

1. Previously called Sawyer Pond.
2. This is a private man-made pond; no public access.
3. This is a shallow, dark tea-colored, acidic, eutrophic pond with very abundant rooted plant growth. Much of the pond was more wetland than pond, a common occurrence in shallow, man-made ponds.
4. Mostly undeveloped shoreline; the only development was near the dam.

Dubes Pond Hooksett



[illegible]

Dubes Pond Hooksett

weed bed
Y, N, W, U
M, L, D, a, P

III-III
44

N

0.1 0 0.1 0.2 Kilometers

stumps

N, U, L, a, M, B

D, a, B

N, B, P, V, L

The map shows the irregular shoreline of Dubes Pond. Numerous sampling points are marked with letters: P (most common), U, N, Y, W, B, L, D, a, V, M, and stumps. Some points are clustered, such as 'LLD' and 'LLa' in the lower-left. Three specific areas are highlighted with boxes and labels: 'weed bed' (top-left), 'N, U, L, a, M, B' (middle-right), and 'N, B, P, V, L' (bottom-right). A north arrow and a scale bar (0 to 0.2 km) are located in the lower-left. Three arrows point to specific locations: one at the top, one at the top-left, and one at the bottom-right.

III-44

weed bed
Y, N, W, U
M, L, D, a, P

N, U, L, a,
M B

D, a, B

N, B, P, V, L

stumps

[illegible]